

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |  | Protein Acc. No. |  |
|---|-----------|----------|-------------|---|-------------|--|------------------|--|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |  |
| 8558  | 0.0480407 | fcrb4582 |             | ni69a04.s1 NCI_CGAP_Pr12 cDNA clone IMAGE:982062, mRNA sequence /clone=IMAGE:982062 /gb=AA522457 /gi=2263169 /ug=Hs.203557 /len=461 | AA522457    |  | NP_060882        |  |
| 2001  | 0.0171326 | hfcf2740 |             | mRNA for KIAA0892 protein, partial cds. /cds=(1,1867) /gb=AB020699 /gi=4240272 /ug=Hs.112751 /len=4164                              | AB020699    |  | BAA74915         |  |
| 6913  | 0.0050966 | ncrc9079 |             | mRNA for KIAA1013 protein, partial cds. /cds=(1,3189) /gb=AB023230 /gi=4589675 /ug=Hs.96427 /len=4783                               | AB023230    |  | BAA76857         |  |
| 2108  | 0.0245794 | ncrb3700 |             | mRNA for KIAA1558 protein, partial cds  | AB046778    |  | BAB13384         |  |
| 2735  | 0.0258088 | miod1073 |             | mRNA for KIAA1694 protein, partial cds. /cds=(1,2275) /gb=AB051481 /gi=12697932 /ug=Hs.19597 /len=4235                              | AB051481    |  | BAB21785         |  |
| 13980   | 0.0350905 | seob1724 |             | mRNA for KIAA1818 protein, partial cds  | AB058721    |  | BAB47447         |  |
| 14601   | 0.0032876 | fcrb1707 |             | RPS27 gene for ribosomal protein S27, complete cds and sequence   | AB061845    |  | BAB79483         |  |
| 11589   | 0.0089568 | seoa6633 |             | chromosome 5 clone CTC-554D6, complete sequence   | AC008575    |  |                  |  |
| 11583   | 0.0191393 | miob2366 |             | chromosome 5 clone CTD-237614, complete sequence  | AC008972    |  |                  |  |
| 14338   | 0.0189791 | mioc3955 |             | chromosome 5 clone CTB-113P19, complete sequence  | AC011374    |  |                  |  |
| 5940  | 0.0236035 | miob0304 |             | BAC clone RP11-321E13 from 2, complete sequence   | AC012358    |  |                  |  |
| 13460   | 0.0437944 | seoa6487 |             | clone RP11-25H20, complete sequence   | AC016207    |  |                  |  |

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|---|-----------|----------|-------------|---|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |
| 14079   | 0.0495134 | ncr9909  |             | chromosome 17, clone RP11-727G18, complete sequence   | AC068576    |  |                  |
| 7849  | 0.0259147 | seoa7635 |             | 12 BAC RP11-546D6 (Roswell Park Cancer Institute BAC Library) complete sequence                   | AC073857    |  |                  |
| 10844   | 0.0411778 | seoa5636 |             | 3 BAC RP11-370M22 (Roswell Park Cancer Institute BAC Library) complete sequence                   | AC078953    |  |                  |
| 5973  | 0.004408  | mioa9398 |             | 12 BAC RP11-536G4 (Roswell Park Cancer Institute BAC Library) complete sequence                   | AC090001    |  |                  |
| 1471  | 0.0060167 | seob4467 |             | chromosome 3 clone RP11-301D8, complete sequence  | AC093142    |  |                  |
| 5786  | 0.0470292 | ncr3164  |             | chromosome 16 clone RP11-410N2, complete sequence   | AC093491    |  |                  |
| 10610   | 0.0281675 | mioc8047 |             | BAC clone RP11-560P13 from 2, complete sequence   | AC105396    |  |                  |
| 13069   | 0.004824  | seoc5351 |             | chromosome 5 clone RP11-65F13, complete sequence  | AC106818    |  |                  |
| 11185   | 0.0180785 | ncrb6103 |             | chromosome 3 clone RP11-350F11, complete sequence   | AC112516    |  |                  |
| 10365   | 0.0212269 | ncr0356  |             | chromosome 5 clone RP11-549J18, complete sequence   | AC114980    |  |                  |
| 7751  | 0.0363465 | seob8997 |             | 3 BAC RP11-643E20 (Roswell Park Cancer Institute BAC Library) complete sequence                   | AC135893    |  |                  |
| 13705   | 0.0247759 | mioc0950 |             | hemacentin mRNA, complete cds /cds=(230,17140) /gb=AF156100 /gi=14575678 /ug=Hs.334485 /len=18207 | AF156100    |  | AAK68690         |

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|---|-----------|----------|-------------|---|-------------|--------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |        |                  |
| 13008   | 0.0220675 | mioc6774 |             | wc41h02.x1 NCI_CGAP_Pr28 cDNA clone IMAGE:2321235 3', mRNA sequence /clone=IMAGE:2321235 /clone_end=3' /gb=AI800041 /gi=5365513 /ug=Hs.369733 /len=504  | AI800041    |        |                  |
| 12377   | 0.0455694 | mioc0011 |             | ts88e10.x1 NCI_CGAP_GC6 cDNA clone IMAGE:2238378 3' similar to contains L1.t3 L1 repetitive element ;. mRNA sequence /clone=IMAGE:2238378 /clone_end=3' /gb=AI918786 /gi=5638641 /ug=Hs.212310 /len=459 | AI918786    |        |                  |
| 7859  | 0.0229721 | seob1075 |             | AJ318805 adipose tissue cDNA clone 2040, mRNA sequence /clone=2040 /gb=AJ318805 /gi=18141682 /ug=Hs.86538 /len=5223   | AJ318805    |        |                  |
| 8354  | 0.0350244 | seoa8466 |             | cDNA FLJ11335 fis, clone PLACE1010630. /gb=AK002197 /gi=7023924 /ug=Hs.284270 /len=1984   | AK002197    | Q9P2K6 |                  |
| 1791  | 0.0223306 | fcrb6296 |             | cDNA FLJ30885 fis, clone FEBRA2004987. /gb=AK055447 /gi=16550174 /ug=Hs.130866 /len=2618  | AK055447    |        |                  |
| 7014  | 0.0077701 | fcr0161  |             | cDNA FLJ32120 fis, clone PEBLM1000068, highly similar to ACTIN, CYTOPLASMIC TYPE 5  | AK056682    |        |                  |
| 5739  | 0.0447304 | hfcr1379 |             | cDNA FLJ25260 fis, clone STM04650, highly similar to TROPOMYOSIN, FIBROBLAST ISOFORM 2  | AK057989    | P09493 |                  |

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|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 14154   | 0.041695  | ncrc2187 |             | cDNA FLJ36977 fis, clone BRACE2006344. /gb=AK094296 /gi=21753327 /ug=Hs.151143 /len=1678   | AK094296    |                  |
| 7393  | 0.0276078 | fcrb3540 |             | cDNA FLJ37957 fis, clone CTONG2009529. /cds=(312,749) /gb=AK095276 /gi=21754501 /ug=Hs.46519 /len=2791   | AK095276    | BAC04519         |
| 12354   | 0.013169  | fcr2502  |             | cDNA FLJ39824 fis, clone SPLEN2011981. /cds=(526,1644) /gb=AK097143 /gi=21756812 /ug=Hs.381885 /len=2110   | AK097143    |                  |
| 4029  | 0.0410369 | mioa0890 |             | cDNA FLJ39995 fis, clone STOMA2002141  | AK097314    |                  |
| 12422   | 0.0211795 | mioc1755 |             | mRNA; cDNA DKFZp434J0828 (from clone DKFZp434J0828)  | AL133094    |                  |
| 9828  | 0.0465361 | ncr8991  |             | mRNA; cDNA DKFZp434O1521 (from clone DKFZp434O1521)  | AL133663    |                  |
| 14029   | 0.0338616 | ncr6543  |             | DNA sequence from clone RP3-331H24 on chromosome 6<br>Contains a putative novel gene, part of the gene for hypothetical protein FLJ21079, similar to opioid growth factor receptor, ESTs, STSS, GSSs and a CpG island, complete sequence | AL136164    |                  |
| 14515   | 0.0120846 | ncr1601  |             | DNA sequence from clone RP11-48719 on chromosome X, complete sequence  | AL161624    |                  |
| 9630  | 0.0388375 | seoc0639 |             | mRNA; cDNA DKFZp761K1115 (from clone DKFZp761K1115); partial cds   | AL162046    | CAB82389         |

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|---|-----------|----------|-------------|---|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |
| 1931  | 0.0003467 | fcr4364  |             | chromosome 14 DNA sequence BAC R-932A10 of library RPCI-11 from chromosome 14 of complete sequence    | AL355834    |  |                  |
| 12645   | 0.0167324 | ncr2016  |             | DNA sequence from clone RP11-428L19 on chromosome 9, complete sequence                                | AL359253    |  |                  |
| 11487   | 0.0020799 | miod6765 |             | mRNA; cDNA DKFZp547B2013 (from clone DKFZp547B2013)   | AL512730    |  |                  |
| 8493  | 0.0078842 | ncr0166  |             | DNA sequence from clone RP11-290B1 on chromosome 1, complete sequence                                 | AL592487    |  |                  |
| 11172   | 0.0277965 | mioc9814 |             | mRNA; cDNA DKFZp313G0615 (from clone DKFZp313G0615) /gb=AL833102 /gi=21733693 /ug=Hs.125779 /len=2124 | AL833102    |  |                  |
| 6143  | 0.043378  | fcr4460  |             | mRNA; cDNA DKFZp686G1167 (from clone DKFZp686G1167) /gb=AL833600 /gi=21734246 /ug=Hs.7720 /len=8355   | AL833600    |  |                  |
| 4394  | 0.0307351 | miod1781 |             | mRNA; cDNA DKFZp667K0921 (from clone DKFZp667K0921)   | AL833671    |  |                  |
| 3423  | 0.0079798 | seob5816 |             | genomic DNA, chromosome 11q, clone:RP11-878E11, complete sequence                                     | AP000767    |  |                  |
| 14843   | 0.0342756 | miod6216 |             | genomic DNA, chromosome 11 clone:RP11-567M21, complete sequence                                       | AP003041    |  |                  |
| 9822  | 0.0135936 | ncrb6932 |             | genomic DNA, chromosome 18 clone:RP11-637N19, complete sequence                                       | AP005060    |  |                  |

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|---|-----------|----------|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No      |
| 12682   | 0.012595  | ncrb2395 |             | xv47e06.x1 Soares_NFL_T_GBC_S1 cDNA clone<br>IMAGE:2816290 3' similar to WP:Y18D10A.6 CE21402<br>SODIUM/HYDROGEN EXCHANGER FAMILY ; mRNA sequence<br>/clone=IMAGE:2816290 /clone_end=3' /gb=AW270137<br>/gi=6657167 /ug=Hs.371190 /len=478 | AW270137         |
| 13818   | 0.0272803 | seoc2733 | LHX         | bladder cancer-related protein (LHX) gene, partial 3'UTR<br>sequence   | AY034106         |
| 7231  | 0.0152474 | ncrc1103 |             | clone MGC:29744 IMAGE:3347567, mRNA, complete cds<br>/cds=(1622,2545) /gb=BC021250 /gi=20987353 /ug=Hs.29645<br>/len=2712  | BC021250         |
| 3365  | 0.0114201 | seob1793 |             | clone IMAGE:4479651, mRNA /gb=BC022934 /gi=18605701<br>/ug=Hs.433247 /len=2657   | BC022934         |
| 11447   | 0.0122758 | mioc5984 |             | hypothetical gene supported by AK000174; AK055070; AK055612,<br>clone IMAGE:4836971, mRNA  | BC028585         |
| 8762  | 0.0390255 | mioc7278 |             | Similar to ATP/GTP-binding protein, clone MGC:32955<br>IMAGE:5267615, mRNA, complete cds /cds=(234,2099)<br>/gb=BC030651 /gi=22658304 /ug=Hs.216044 /len=3000  | BC030651         |
| 3196  | 0.0159789 | fcrb6345 |             | clone IMAGE:3921971, mRNA, partial cds (=BC020237.1)   | BC032295         |
| 7478  | 0.0098092 | fcrb9751 |             | clone IMAGE:4538370, mRNA  | BC034439         |
| 7640  | 0.0497108 | mioc4547 |             | clone IMAGE:5264837, mRNA /gb=BC035149 /gi=23242682<br>/ug=Hs.247309 /len=2127   | BC035149         |
|   |           |          |             |  | Protein Acc. No. |

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|---|-----------|----------|-------------|---|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |
| 11476   | 0.0044785 | seoc2280 |             | clone IMAGE:3866125, mRNA /gb=BC035467 /gi=22028050 /ug=Hs.301226 /len=2297   | BC035467    |  |                  |
| 8541  | 0.034907  | ncrc2878 |             | clone IMAGE:5266665, mRNA, partial cds  | BC036526    |  |                  |
| 10368   | 0.0317389 | ncrc0055 |             | clone IMAGE:4750477, mRNA   | BC038347    |  |                  |
| 14374   | 0.0307727 | miod5507 |             | RC4-HT0277-160200-013-d07 HT0277 cDNA, mRNA sequence /gb=BE151126 /gi=8613847 /ug=Hs.158600 /len=571  | BE151126    |  |                  |
| 12398   | 0.0299803 | frc6756  |             | MR2-NT0138-131200-007-h02 NT0138 cDNA, mRNA sequence /gb=BF930590 /gi=12348018 /ug=Hs.150059 /len=561   | BF930590    |  |                  |
| 13489   | 0.0192418 | seob5254 |             | 602300922F1 NIH_MGC_87 cDNA clone IMAGE:4402684 5', mRNA sequence /clone=IMAGE:4402684 /clone_end=5' /gb=BG034754 /gi=12428380 /ug=Hs.406233 /len=993                 | BG034754    |  |                  |
| 13962   | 0.0399344 | seob6434 |             | 602591134F1 NIH_MGC_77 cDNA clone IMAGE:4717761 5', mRNA sequence /clone=IMAGE:4717761 /clone_end=5' /gb=BG570144 /gi=13577797 /ug=Hs.437115 /len=672                 | BG570144    |  |                  |
| 12411   | 0.0452134 | miob9658 |             | UI-H-ED1-ayc-o-24-0-UI.s1 NCI_CGAP_ED1 cDNA clone IMAGE:5837039 3', mRNA sequence /clone=IMAGE:5837039 /clone_end=3' /gb=BQ015020 /gi=19739921 /ug=Hs.37251 /len=1138 | BQ015020    |  |                  |

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|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 11671   | 0.0362688 | ncr1423  |             | UI-H-DPO-avb-p-04-0-UI.s1 NCI_CGAP_Fs1 cDNA clone IMAGE:5877363 3', mRNA sequence /clone=IMAGE:5877363 /clone_end=3' /gb=BQ020727 /gi=19756005 /ug=Hs.446656 /len=1208                   | BQ020727    |                  |
| 12115   | 0.0213303 | seob3962 |             | UI-H-EZ1-bbe-e-05-0-UI.s1 NCI_CGAP_Ch2 cDNA clone UI-H-EZ1-bbe-e-05-0-UI 3', mRNA sequence /clone=UI-H-EZ1-bbe-e-05-0-UI /clone_end=3' /gb=BQ575227 /gi=21478544 /ug=Hs.127009 /len=1049 | BQ575227    |                  |
| 10654   | 0.0091191 | seoc4164 |             | AGENCOURT_7968233 NIH_MGC_67 cDNA clone IMAGE:6170681 5', mRNA sequence /clone=IMAGE:6170681 /clone_end=5' /gb=BU189828 /gi=22703812 /ug=Hs.258214 /len=956                              | BU189828    |                  |
| 10668   | 0.03012   | miod6539 |             | UI-H-FH1-bfh-g-05-0-UI.s1 NCI_CGAP_FH1 cDNA clone UI-H-FH1-bfh-g-05-0-UI 3', mRNA sequence /clone=UI-H-FH1-bfh-g-05-0-UI /clone_end=3' /gb=BU618251 /gi=23284466 /ug=Hs.396671 /len=1126 | BU618251    |                  |



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|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 14385   | 0.0100465 | seoc0371 |             | UI-H-FL1-bfx-b-02-0-UI.s1 NCI_CGAP_FL1 cDNA clone UI-H-FL1-bfx-b-02-0-UI 3', mRNA sequence /clone=UI-H-FL1-bfx-b-02-0-UI /clone_end=3' /gb=BU620781 /gi=23286996 /ug=Hs.120850 /len=1126 | BU620781    |                  |
| 10209   | 0.0317088 | seob4458 |             | BX092060 NCI_CGAP_Pr12 cDNA clone IMAGp998O033151 ; IMAGE:1252442, mRNA sequence /clone=IMAGp998O033151_ ; IMAGE:1252442 /gb=BX092060 /gi=27825122 /ug=Hs.148162 /len=373                | BX092060    |                  |
| 10267   | 0.0479015 | ncr1529  |             | BX114194 Soares melanocyte 2NbHM cDNA clone IMAGp998J14570, mRNA sequence /clone=IMAGp998J14570_ ; IMAGE:261229 /gb=BX114194 /gi=27838661 /ug=Hs.176420 /len=687                         | BX114194    |                  |
| 12067   | 0.0288807 | seob0296 |             | UI-H-ED1-axq-o-07-0-UI.s1 NCI_CGAP_ED1 cDNA clone UI-H-ED1-axq-o-07-0-UI 3', mRNA sequence /clone=UI-H-ED1-axq-o-07-0-UI /clone_end=3' /gb=CA445564 /gi=24809984 /ug=Hs.243319 /len=539  | CA445564    |                  |
| 12063   | 0.0438975 | seoa8827 |             | Mus musculus mitochondrion, complete genome  | NC_001569   | NP_008108        |
| 11965   | 0.0181392 | seob9652 |             | Rattus norvegicus mitochondrial genome   | NC_001665   |                  |
| 5911  | 0.0087724 | mioa2569 |             | mitochondrion, complete genome   | NC_001807   |                  |
| 10507   | 0.0402134 | mioc0393 |             | mitochondrion, complete genome   | NC_001807   |                  |

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|---|-----------|----------|-------------|--|-------------|-----------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No |           |                  |
| 5994  | 0.0406563 | miob4975 | IF          | I factor (complement) (IF), mRNA /cds=(15,1766) /gb=NM_000204 /gi=4504578 /ug=Hs.36602 /len=1963   | NM_000204   | NP_000195 |                  |
| 6716  | 0.007502  | fcrb1950 | RPL21       | ribosomal protein L21 (RPL21), mRNA /cds=(30,512) /gb=NM_000982 /gi=18104947 /ug=Hs.431927 /len=568                                      | NM_000982   | NP_000973 |                  |
| 5750  | 0.019226  | hfc3622  | CDC2-rela1  | cyclin-dependent kinase 9 (CDC2-related kinase) (CDK9), mRNA /cds=(99,1217) /gb=NM_001261 /gi=17017983 /ug=Hs.150423 /len=1791           | NM_001261   | NP_001252 |                  |
| 6242  | 0.0097769 | ncr0210  |             | disabled 2, mitogen-responsive phosphoprotein (Drosophila) (DAB2), mRNA /cds=(145,2457) /gb=NM_001343 /gi=4503250 /ug=Hs.81988 /len=3268 | NM_001343   | NP_001334 |                  |
| 3922  | 0.0045032 | ncr4696  | FLNB        | filamin B, beta (actin binding protein 278) (FLNB), mRNA /cds=(132,7940) /gb=NM_001457 /gi=4503746 /ug=Hs.81008 /len=9432                | NM_001457   | NP_001448 |                  |
| 4358  | 0.0350369 | miod1714 | CSNK1A1     | casein kinase 1, alpha 1 (CSNK1A1), mRNA /cds=(140,1153) /gb=NM_001892 /gi=19923745 /ug=Hs.283738 /len=2080                              | NM_001892   | NP_001883 |                  |
| 14058   | 0.028823  | ncr4452  | FBLN2       | fibulin 2 (FBLN2), mRNA /cds=(70,3624) /gb=NM_001998 /gi=4503664 /ug=Hs.198862 /len=4139   | NM_001998   | NP_001989 |                  |
| 6490  | 0.0392753 | miob3396 | MT1L        | metallothionein 1L (MT1L), mRNA /cds=(53,238) /gb=NM_002450 /gi=4505270 /ug=Hs.380778 /len=415   | NM_002450   |           |                  |

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|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 5902  | 0.0300378 | mioa1062 | PSMC2       | proteasome (prosome, macropain) 26S subunit, ATPase, 2 (PSMC2), mRNA /cds=(71,1372) /gb=NM_002803 /gi=24430152 /ug=Hs.61153 /len=1545  | NM_002803   | NP_002794        |
| 2306  | 0.0104761 | seoa1552 | S100A4      | S100 calcium binding protein A4 (calcium protein, calvasculin, metastasin, murine placental (S100A4), transcript variant 1, mRNA /cds=(70,375) /gb=NM_002961 /gi=9845514 /ug=Hs.81256 /len=512 | NM_002961   | NP_002952        |
| 5044  | 0.0048495 | ncrc9469 | S100A4      | S100 calcium binding protein A4 (calcium protein, calvasculin, metastasin, murine placental (S100A4), transcript variant 1, mRNA /cds=(70,375) /gb=NM_002961 /gi=9845514 /ug=Hs.81256 /len=512 | NM_002961   |                  |
| 1877  | 0.040896  | fcr0665  | SRPR        | signal recognition particle receptor ('docking protein') (SRPR), mRNA /cds=(52,1968) /gb=NM_003139 /gi=23308696 /ug=Hs.75730 /len=2958   | NM_003139   | NP_003130        |
| 5790  | 0.0236813 | ncr3778  | TBP         | TAF2 RNA polymerase II, TATA box binding protein (TBP)-associated factor, 150kDa (TAF2), mRNA /cds=(271,3870) /gb=NM_003184 /gi=20357590 /ug=Hs.122752 /len=5019                               | NM_003184   | NP_003175        |
| 6130  | 0.032103  | fcr1844  | CXorf12     | chromosome X open reading frame 12 (CXorf12), mRNA /cds=(285,1070) /gb=NM_003492 /gi=4504738 /ug=Hs.23119 /len=1411  | NM_003492   | NP_003483        |

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|---|-----------|----------|-------------|---|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No | Protein Acc. No. |
| 4811  | 0.0328448 | fcrb2160 | GGH         | gamma-glutamyl hydrolase (conjugase, folypolygammaglutamyl hydrolase) (GGH), mRNA /cds=(60,1016) /gb=NM_003878 /gi=4503986 /ug=Hs.78619 /len=1280               | NM_003878   | NP_003869        |
| 5591  | 0.0429154 | fcrb8208 |             | SEC22 vesicle trafficking protein-like 3 (S. cerevisiae) (SEC22L3), transcript variant 2, mRNA /cds=(119,871) /gb=NM_004206 /gi=21536310 /ug=Hs.12942 /len=1519 | NM_004206   | NP_004197        |
| 4525  | 0.0267671 | mioa7299 | U5-116KD    | U5 snRNP-specific protein, 116 kD (U5-116KD), mRNA /cds=(61,2979) /gb=NM_004247 /gi=4759279 /ug=Hs.151787 /len=3784   | NM_004247   | NP_004238        |
| 13203   | 0.039573  | mioc1198 | BNIP3L      | BCL2/adenovirus E1B 19kDa interacting protein 3-like (BNIP3L), mRNA /cds=(83,742) /gb=NM_004331 /gi=4757859 /ug=Hs.132955 /len=1337                             | NM_004331   | NP_004322        |
| 10057   | 0.0217666 | seob9614 | NAP1L3      | nucleosome assembly protein 1-like 3 (NAP1L3), mRNA /cds=(265,1785) /gb=NM_004538 /gi=21327709 /ug=Hs.21365 /len=2634   | NM_004538   | NP_004529        |
| 1800  | 0.013019  | fcrb7070 | SAE1        | SUMO-1 activating enzyme subunit 1 (SAE1), mRNA /cds=(46,1086) /gb=NM_005500 /gi=4885584 /ug=Hs.279868 /len=2119  | NM_005500   | NP_005491        |
| 3952  | 0.0411403 | ncr3434  | IL18BP      | interleukin 18 binding protein (IL18BP), transcript variant C, mRNA /cds=(929,1522) /gb=NM_005699 /gi=27502394 /ug=Hs.325978 /len=3630                          | NM_005699   | NP_005690        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |                  |
|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 1784  | 0.0076512 | fcrb4925 | TSPAN-3     | tetraspan 3 (TSPAN-3), mRNA /cds=(218,979) /gb=NM_005724 /gi=21264581 /ug=Hs.100090 /len=1842  | NM_005724   | NP_005715        |
| 4731  | 0.0307217 | seob1316 | TP53BPL     | tumor protein p53-binding protein (TP53BPL), mRNA /cds=(541,2988) /gb=NM_005802 /gi=5032190 /ug=Hs.179982 /len=3549                        | NM_005802   | NP_005793        |
| 1879  | 0.0433004 | fcr0990  | RAB9P40     | Rab9 effector p40 (RAB9P40), mRNA /cds=(150,1268) /gb=NM_005833 /gi=5032014 /ug=Hs.19012 /len=1297   | NM_005833   | NP_005824        |
| 9433  | 0.0197163 | fcr6563  | RBM12       | RNA binding motif protein 12 (RBM12), transcript variant 1, mRNA /cds=(275,3073) /gb=NM_006047 /gi=23510460 /ug=Hs.180895 /len=6650        | NM_006047   | NP_006038        |
| 3364  | 0.0313213 | seob1617 | LANCL1      | LanC lantibiotic synthetase component C-like 1 (bacterial) (LANCL1), mRNA /cds=(105,1304) /gb=NM_006055 /gi=5174444 /ug=Hs.13351 /len=4544 | NM_006055   | NP_006046        |
| 5450  | 0.0429692 | ncrc4226 | PDGFRL      | platelet-derived growth factor receptor-like (PDGFRL), mRNA /cds=(62,1189) /gb=NM_006207 /gi=5453871 /ug=Hs.170040 /len=1502               | NM_006207   | NP_006198        |
| 4309  | 0.0412157 | hfc3500  | NPEPPS      | aminopeptidase puromycin sensitive (NPEPPS), mRNA /cds=(196,2823) /gb=NM_006310 /gi=15451906 /ug=Hs.293007 /len=4177                       | NM_006310   | NP_006301        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |  | Protein Acc. No. |
|---|-----------|----------|-------------|---|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |
| 4732  | 0.0453612 | seob1420 | MUF1        | MUF1 protein (MUF1), mRNA /cds=(1,1854) /gb=NM_006369 /gi=5453747 /ug=Hs.172210 /len=2165   | NM_006369   |  | NP_006360        |
| 2699  | 0.0452212 | miob0178 | TCTEL1      | t-complex-associated-testis-expressed 1-like 1 (TCTEL1), mRNA /cds=(1,342) /gb=NM_006519 /gi=5730084 /ug=Hs.266940 /len=713                       | NM_006519   |  | NP_006510        |
| 4151  | 0.0343604 | miob3456 | SLA         | Src-like-adaptor (SLA), mRNA /cds=(42,872) /gb=NM_006748 /gi=5803170 /ug=Hs.75367 /len=2665   | NM_006748   |  | NP_006739        |
| 1268  | 0.0125613 | seob7584 | SKP1A       | S-phase kinase-associated protein 1A (p19A) (SKP1A), transcript variant 1, mRNA /cds=(140,622) /gb=NM_006930 /gi=25777710 /ug=Hs.171626 /len=2172 | NM_006930   |  | NP_008861        |
| 5680  | 0.0282776 | fcr5222  | CPSF6       | cleavage and polyadenylation specific factor 6, 68kDa (CPSF6), mRNA /cds=(35,1690) /gb=NM_007007 /gi=5901927 /ug=Hs.64542 /len=3426               | NM_007007   |  | NP_008938        |
| 5542  | 0.0357187 | fcrb6874 | ATP5I       | ATP synthase, H transporting, mitochondrial F0 complex, subunit e (ATP5I), mRNA /cds=(64,273) /gb=NM_007100 /gi=6005716 /ug=Hs.85539 /len=336     | NM_007100   |  | NP_009031        |
| 6496  | 0.0345777 | miob4673 | TMF1        | TATA element modulatory factor 1 (TMF1), mRNA /cds=(1,3282) /gb=NM_007114 /gi=6005903 /ug=Hs.267632 /len=3282                                     | NM_007114   |  | NP_009045        |
| 4580  | 0.0441784 | miob3044 | ZNF208      | zinc finger protein 208 (ZNF208), mRNA /cds=(1,3504) /gb=NM_007153 /gi=6005975 /ug=Hs.55452 /len=3504   | NM_007153   |  | NP_009084        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |                  |
|---|-----------|----------|-------------|---|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No | Protein Acc. No. |
| 5990  | 0.0200977 | miob4055 | PRKA        | A kinase (PRKA) anchor protein 2 (AKAP2), transcript variant 1, mRNA /cds=(181,3492) /gb=NM_007203 /gi=22325354 /ug=Hs.42322 /len=7522          | NM_007203   | NP_009134        |
| 5028  | 0.026245  | fcrb5254 | NCBP2       | nuclear cap binding protein subunit 2, 20kDa (NCBP2), mRNA /cds=(27,497) /gb=NM_007362 /gi=19923386 /ug=Hs.240770 /len=2120                     | NM_007362   | NP_031388        |
| 6372  | 0.0394625 | mioa1494 | CD2AP       | CD2-associated protein (CD2AP), mRNA /cds=(51,1970) /gb=NM_012120 /gi=11321633 /ug=Hs.374340 /len=4658  | NM_012120   | NP_036252        |
| 2047  | 0.0389497 | ncr3963  | P8          | p8 protein (candidate of metastasis 1) (P8), mRNA /cds=(103,351) /gb=NM_012385 /gi=6912569 /ug=Hs.424279 /len=719                               | NM_012385   | NP_036517        |
| 2366  | 0.0448457 | fcr4885  | DNCL2A      | dynein, cytoplasmic, light polypeptide 2A (DNCL2A), mRNA /cds=(47,337) /gb=NM_014183 /gi=7661821 /ug=Hs.100002 /len=687                         | NM_014183   | NP_054902        |
| 5259  | 0.0103492 | seob5773 | NMP200      | nuclear matrix protein NMP200 related to splicing factor PRP19 (NMP200), mRNA /cds=(208,1722) /gb=NM_014502 /gi=7657380 /ug=Hs.173980 /len=2167 | NM_014502   | NP_055317        |
| 11813   | 0.0433384 | fcr7240  | PIK3R4      | phosphoinositide-3-kinase, regulatory subunit 4, p150 (PIK3R4), mRNA /cds=(543,4619) /gb=NM_014602 /gi=23943911 /ug=Hs.83050 /len=5060          | NM_014602   | NP_055417        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |                  |
|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 6383  | 0.0406914 | mioa3629 | S100A6      | S100 calcium binding protein A6 (calyculin) (S100A6), mRNA /cds=(103,375) /gb=NM_014624 /gi=9845517 /ug=Hs.275243 /len=470 | NM_014624   | NP_055439        |
| 6788  | 0.0041401 | ncrb8392 | S100A6      | S100 calcium binding protein A6 (calyculin) (S100A6), mRNA /cds=(103,375) /gb=NM_014624 /gi=9845517 /ug=Hs.275243 /len=470 | NM_014624   |                  |
| 6015  | 0.0457054 | miob1493 | KIAA0373    | KIAA0373 gene product (KIAA0373), mRNA /cds=(1181,5800) /gb=NM_014684 /gi=7662079 /ug=Hs.150444 /len=5967                  | NM_014684   | NO DATA          |
| 13132   | 0.025742  | frcr5351 | ENDOFIN     | endosome-associated FYVE-domain protein (ENDOFIN), mRNA /cds=(249,4868) /gb=NM_014733 /gi=7662047 /ug=Hs.83790 /len=6632   | NM_014733   | NP_055548        |
| 3545  | 0.0302173 | ncrc4600 | KIAA0164    | KIAA0164 gene product (KIAA0164), mRNA /cds=(254,3016) /gb=NM_014739 /gi=7661957 /ug=Hs.80338 /len=5538                    | NM_014739   | NO DATA          |
| 9959  | 0.0214862 | mioc0630 | ZFXH1B      | zinc finger homeobox 1b (ZFXH1B), mRNA /cds=(445,4089) /gb=NM_014795 /gi=7662183 /ug=Hs.34871 /len=5523                    | NM_014795   | NP_055610        |
| 2302  | 0.0316021 | mioc0884 | ANKRD6      | ankyrin repeat domain 6 (ANKRD6), mRNA /cds=(169,2247) /gb=NM_014942 /gi=7662405 /ug=Hs.30991 /len=5080                    | NM_014942   | NO DATA          |
| 6559  | 0.0096691 | seoa2391 | KIFAP3      | kinesin-associated protein 3 (KIFAP3), mRNA /cds=(272,2650) /gb=NM_014970 /gi=18105053 /ug=Hs.171374 /len=2997             | NM_014970   | NP_055785        |



| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |  | Protein Acc. No. |
|---|-----------|----------|-------------|--|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No |  |                  |
| 13329   | 0.0226992 | seob8501 | KIAA1037    | KIAA1037 protein (KIAA1037), mRNA /cds=(399,2429) /gb=NM_015023 /gi=22095348 /ug=Hs.172825 /len=4305                               | NM_015023   |  | NP_055838        |
| 4208  | 0.0203901 | seoa7509 | RRS1        | of yeast ribosome biogenesis regulatory protein RRS1 (RRS1), mRNA /cds=(99,1196) /gb=NM_015169 /gi=14719401 /ug=Hs.71827 /len=1718 | NM_015169   |  | NP_055984        |
| 9276  | 0.0214196 | seoc1425 | DKFZP586    | DKFZP586G1517 protein (DKFZP586G1517), mRNA /cds=(127,2328) /gb=NM_015440 /gi=24308062 /ug=Hs.44155 /len=2749                      | NM_015440   |  | NP_056255        |
| 3698  | 0.0060947 | fcrb9694 | EHZF        | early hematopoietic zinc finger (EHZF), mRNA /cds=(150,4085) /gb=NM_015461 /gi=24308068 /ug=Hs.26799 /len=4869                     | NM_015461   |  | NP_056276        |
| 3686  | 0.0251175 | fcrb8504 | AUTS2       | autism susceptibility candidate 2 (AUTS2), mRNA /cds=(322,4101) /gb=NM_015570 /gi=17864089 /ug=Hs.32168 /len=5972                  | NM_015570   |  | NP_056385        |
| 8517  | 0.0409078 | fcrb1382 | DKFZP434    | DKFZP434M154 protein (DKFZP434M154), mRNA /cds=(345,2099) /gb=NM_015649 /gi=24308114 /ug=Hs.154680 /len=2630                       | NM_015649   |  | NP_056464        |
| 4541  | 0.0293216 | mioa2333 | KBF2        | H-2K binding factor-2 (KBF2), mRNA /cds=(239,1501) /gb=NM_015874 /gi=7706215 /ug=Hs.347340 /len=5360                               | NM_015874   |  | NP_056958        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |           | Protein Acc. No. |
|---|-----------|----------|-------------|---|-------------|-----------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |           |                  |
| 6776  | 0.0209151 | fcrb4696 | GRIM19      | cell death-regulatory protein GRIM19 (GRIM19), mRNA /cds=(212,895) /gb=NM_015965 /gi=21361821 /ug=Hs.279574 /len=1023   | NM_015965   | NP_057049 |                  |
| 5217  | 0.021003  | seob4805 | ATP6V1D     | ATPase, H transporting, lysosomal 34kDa, V1 subunit D (ATP6V1D), mRNA /cds=(177,920) /gb=NM_015994 /gi=19913437 /ug=Hs.272630 /len=1675   | NM_015994   | NP_057078 |                  |
| 4597  | 0.0108226 | seoa1104 | MRPS33      | mitochondrial ribosomal protein S33 (MRPS33), nuclear gene encoding mitochondrial protein, transcript variant 1, mRNA /cds=(139,459) /gb=NM_016071 /gi=16950595 /ug=Hs.83006 /len=727 | NM_016071   | NP_057155 |                  |
| 4795  | 0.0133922 | seob6413 | EPLIN       | epithelial protein lost in neoplasm beta (EPLIN), mRNA /cds=(102,2381) /gb=NM_016357 /gi=7705372 /ug=Hs.10706 /len=3655   | NM_016357   | NP_057441 |                  |
| 6025  | 0.0388375 | miob3928 | BCAA        | RBP1-like protein (BCAA), transcript variant 1, mRNA /cds=(467,4405) /gb=NM_016374 /gi=22035676 /ug=Hs.17428 /len=6065  | NM_016374   | NP_057458 |                  |
| 8162  | 0.0268973 | miob4184 | HSPC148     | hypothetical protein HSPC148 (HSPC148), mRNA /cds=(64,753) /gb=NM_016403 /gi=7705474 /ug=Hs.42743 /len=1046   | NM_016403   | NP_057487 |                  |
| 4582  | 0.0113458 | miob3354 | LOC51315    | hypothetical protein LOC51315 (LOC51315), mRNA /cds=(395,1174) /gb=NM_016618 /gi=7706155 /ug=Hs.5721 /len=1774  | NM_016618   | NP_057702 |                  |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |                  |
|---|-----------|----------|-------------|---|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No | Protein Acc. No. |
| 11645   | 0.0116222 | seob3154 | FLJ20003    | hypothetical protein FLJ20003 (FLJ20003), mRNA /cds=(31,1188) /gb=NM_017615 /gi=8923008 /ug=Hs.258798 /len=1387                                     | NM_017615   | NP_060085        |
| 11379   | 0.0262807 | mioc3580 | FLJ20038    | hypothetical protein FLJ20038 (FLJ20038), mRNA /cds=(274,720) /gb=NM_017634 /gi=8923043 /ug=Hs.72071 /len=2571                                      | NM_017634   | NP_060104        |
| 2174  | 0.0365115 | mioa4057 | TRPM7       | transient receptor potential cation channel, subfamily M, member 7 (TRPM7), mRNA /cds=(272,5869) /gb=NM_017672 /gi=24308150 /ug=Hs.267914 /len=7259 | NM_017672   | NP_060142        |
| 9922  | 0.0289395 | mioc0347 | FLJ10769    | hypothetical protein FLJ10769 (FLJ10769), mRNA /cds=(15,1187) /gb=NM_018210 /gi=8922653 /ug=Hs.8083 /len=2659                                       | NM_018210   | NP_060680        |
| 9466  | 0.012309  | mioc2619 | FLJ10891    | hypothetical protein FLJ10891 (FLJ10891), mRNA /cds=(128,1525) /gb=NM_018260 /gi=8922743 /ug=Hs.274169 /len=2864                                    | NM_018260   | NP_060730        |
| 4578  | 0.023642  | miob2687 | NGLY1       | N-glycanase 1 (NGLY1), mRNA /cds=(42,2006) /gb=NM_018297 /gi=21314689 /ug=Hs.63657 /len=2182  | NM_018297   | NP_060767        |
| 13306   | 0.0489116 | mioc8264 | FLJ11294    | hypothetical protein FLJ11294 (FLJ11294), mRNA /cds=(160,4170) /gb=NM_018383 /gi=19923528 /ug=Hs.107000 /len=4602                                   | NM_018383   | NP_060853        |
| 7083  | 0.0243386 | seob3751 | C14orf11    | chromosome 14 open reading frame 11 (C14orf11), mRNA /cds=(96,797) /gb=NM_018453 /gi=8922092 /ug=Hs.433269 /len=1264                                | NM_018453   | NP_060923        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |                  |
|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 5312  | 0.0418089 | fcrb1992 | TSGA14      | testis specific, 14 (TSGA14), mRNA /cds=(48,1169) /gb=NM_018718 /gi=16306478 /ug=Hs.27027 /len=3526  | NM_018718   | NP_061188        |
| 322   | 0.0481607 | mioa9541 | H/ACA sm    | nucleolar protein family A, member 1 (H/ACA small nucleolar RNPs) (NOLA1), transcript variant 1, mRNA /cds=(309,962) /gb=NM_018983 /gi=15011914 /ug=Hs.69851 /len=1273 | NM_018983   | NP_061856        |
| 13029   | 0.0296854 | seoc4103 | C3orf4      | chromosome 3 open reading frame 4 (C3orf4), mRNA /cds=(881,1642) /gb=NM_019895 /gi=11096339 /ug=Hs.107393 /len=2820  | NM_019895   | NP_063948        |
| 3604  | 0.0290424 | ncrc9483 | Asp-Glu-A   | DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 24 (DDX24), mRNA /cds=(100,2679) /gb=NM_020414 /gi=14251213 /ug=Hs.155986 /len=2967                                       | NM_020414   | NP_065147        |
| 2874  | 0.0430874 | seob4147 | KIAA1533    | KIAA1533 protein (KIAA1533), mRNA /cds=(379,2331) /gb=NM_020895 /gi=24308246 /ug=Hs.83575 /len=2724  | NM_020895   | NP_065946        |
| 9715  | 0.0282598 | seoa6358 | RDH14       | retinol dehydrogenase 14 (all-trans and 9-cis) (RDH14), mRNA /cds=(64,1074) /gb=NM_020905 /gi=10190745 /ug=Hs.288880 /len=1538   | NM_020905   | NP_065956        |
| 13850   | 0.0277604 | seoc2173 | MI-ER1      | mesoderm induction early response 1 (MI-ER1), mRNA /cds=(234,1844) /gb=NM_020948 /gi=24308260 /ug=Hs.222746 /len=4972  | NM_020948   | NP_065999        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |                  |
|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 6421  | 0.0242694 | mioa4014 | APMCF1      | APMCF1 protein (APMCF1), mRNA /cds=(17,832) /gb=NM_021203 /gi=14917112 /ug=Hs.12152 /len=1745  | NM_021203   | NP_067026        |
| 11810   | 0.0016135 | fcr6826  |             | egl nine 3 (C. elegans) (EGLN3), mRNA /cds=(327,1046) /gb=NM_022073 /gi=11545786 /ug=Hs.18878 /len=2770  | NM_022073   | NP_071356        |
| 9605  | 0.0076915 | seoc2475 | GalNAc-T1   | UDP-N-acetyl-alpha-D-galactosamine: polypeptide N-acetylgalactosaminyltransferase 11 (GalNAc-T11) (GALNT11), mRNA /cds=(84,1910) /gb=NM_022087 /gi=11545800 /ug=Hs.97056 /len=2591 | NM_022087   | NP_071370        |
| 2053  | 0.0084416 | miod1505 | DATF1       | death associated transcription factor 1 (DATF1), transcript variant 1, mRNA /cds=(506,2194) /gb=NM_022105 /gi=18375616 /ug=Hs.155313 /len=2977                                     | NM_022105   | NP_071388        |
| 14897   | 0.0360837 | seoc2931 | FLJ21939    | hypothetical protein FLJ21939 similar to 5-azacytidine induced gene 2 (FLJ21939), mRNA /cds=(380,1558) /gb=NM_022461 /gi=11968002 /ug=Hs.380413 /len=2248                          | NM_022461   | NP_071906        |
| 13928   | 0.0208929 | seoa6573 | FLJ21080    | hypothetical protein FLJ21080 (FLJ21080), mRNA /cds=(128,1237) /gb=NM_022743 /gi=12232400 /ug=Hs.8109 /len=1477  | NM_022743   | NP_073580        |
| 6640  | 0.0185101 | seob1513 | C6.1A       | c6.1A (C6.1A), mRNA /cds=(3,953) /gb=NM_024332 /gi=13236582 /ug=Hs.301927 /len=2846  | NM_024332   | NP_077308        |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |   |             |  | Protein Acc. No. |
|---|-----------|----------|-------------|---|-------------|--|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description   | Gene Acc No |  |                  |
| 11469   | 0.0248666 | seoc1230 | FLJ13920    | hypothetical protein FLJ13920 (FLJ13920), mRNA /cds=(28,462) /gb=NM_024558 /gi=13375724 /ug=Hs.13056 /len=1767                    | NM_024558   |  | NP_078834        |
| 13736   | 0.0357916 | mioc7818 | DC50        | hypothetical protein DC50 (DC50), mRNA /cds=(37,366) /gb=NM_031210 /gi=24475712 /ug=Hs.324521 /len=442                            | NM_031210   |  | NP_112487        |
| 13370   | 0.046692  | seob9750 | HP43.8KD    | HP43.8KD protein (HP43.8KD), mRNA /cds=(507,3635) /gb=NM_032557 /gi=27545312 /ug=Hs.332841 /len=4684                              | NM_032557   |  | NP_115946        |
| 5140  | 0.037316  | fcrb9871 | FLJ14525    | hypothetical protein FLJ14525 (FLJ14525), mRNA /cds=(20,1003) /gb=NM_032800 /gi=14249477 /ug=Hs.26812 /len=3733                   | NM_032800   |  | NP_116189        |
| 10679   | 0.0115169 | seoc0951 | SYNE1       | spectrin repeat containing, nuclear envelope 1 (SYNE1), transcript variant longest, mRNA  | NM_033071   |  | NP_149062        |
| 1870  | 0.0341647 | fcr0604  | PRAD1: pa   | cyclin D1 (PRAD1: parathyroid adenomatosis 1) (CCND1), mRNA /cds=(210,1097) /gb=NM_053056 /gi=16950654 /ug=Hs.82932 /len=4306     | NM_053056   |  | NP_444284        |
| 5137  | 0.0009427 | fcrb9588 | UBC6 hom    | ubiquitin-conjugating enzyme E2, J2 (UBC6 yeast) (UBE2J2), mRNA /cds=(205,879) /gb=NM_058167 /gi=17157996 /ug=Hs.352567 /len=2167 | NM_058167   |  | NP_477515        |
| 5220  | 0.0180064 | seob5379 | Cir12       | Rattus norvegicus calcium-independent alpha-latrotoxin receptor 2 (Cir12), mRNA   | NM_134408   |  | NO DATA          |

| Table 3AB, Genes Specific to OA (Mild and Severe) But Removing Genes Relevant to Co-Morbidities of OA & Hypertension, OA & Obesity, OA & Asthma, OA & Allergies, and OA & Systemic Steroids |           |          |             |  |             |                  |
|---|-----------|----------|-------------|--|-------------|------------------|
| Spot  | p-value   | Clone ID | Gene Symbol | Description  | Gene Acc No | Protein Acc. No. |
| 4062  | 0.0423225 | mioa8774 | BCL6        | B-cell CLL/lymphoma 6 (zinc finger protein 51) (BCL6), transcript variant 2, mRNA /cds=(421,2541) /gb=NM_138931 /gi=21040335 /ug=Hs.155024 /len=3630 | NM_138931   | NP_620309        |
| 5022  | 0.0248507 | fcrb4542 |             | ORM1-like 3 (S. cerevisiae) (ORMDL3), mRNA /cds=(141,602) /gb=NM_139280 /gi=27544926 /ug=Hs.374824 /len=2109   | NM_139280   | NP_644809        |
| 11242   | 0.0474608 | fcrb2431 | C14orf32    | chromosome 14 open reading frame 32 (C14orf32), mRNA /cds=(135,872) /gb=NM_144578 /gi=21389356 /ug=Hs.406401 /len=2870                               | NM_144578   | NP_653179        |
| 3638  | 0.0013631 | ncrc9280 | LOC15804    | similar to hypothetical protein BC014127 (LOC158046), mRNA   | NM_145283   | NP_660326        |
| 14019   | 0.0070027 | ncr3559  | TUWD12      | TUWD12 (TUWD12), mRNA /cds=(106,1542) /gb=NM_172240 /gi=26665868 /ug=Hs.25130 /len=2984  | NM_172240   | NP_758440        |
| 3727  | 0.043378  | fcrb8991 |             | Sec7p-like protein mRNA, partial cds. /cds=(1,801) /gb=U59752 /gi=1465756 /ug=Hs.8517 /len=997   | U59752      | AAB17532         |
| 11217   | 0.0236932 | ncr0786  |             | ***** No hits found *****  |             |                  |
| 14454   | 0.0126139 | hfcf8897 |             | ***** No hits found *****  |             |                  |
| 10512   | 0.0467122 | mioc1292 |             | POLY A   |             |                  |
| 4178  | 0.0017403 | seoa1559 |             |  |             |                  |